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| APPLICATION NO.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.  |
|-----------------------|-------------|----------------------|---------------------|-------------------|
| 09/493,692            | 01/28/2000  | Bahram Javidi        | 98-2091             | 2545              |
| 23413                 | 7590        | 07/18/2005           |                     | EXAMINER          |
| CANTOR COLBURN, LLP   |             |                      |                     | LAVARIAS, ARNEL C |
| 55 GRIFFIN ROAD SOUTH |             |                      |                     |                   |
| BLOOMFIELD, CT 06002  |             |                      |                     |                   |
|                       |             |                      | ART UNIT            | PAPER NUMBER      |
|                       |             |                      | 2872                |                   |

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                              |                     |  |
|------------------------------|------------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b>       | <b>Applicant(s)</b> |  |
|                              | 09/493,692                   | JAVIDI, BAHRAM      |  |
|                              | Examiner<br>Arnel C. Lavaras | Art Unit<br>2872    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 12/22/03, 4/7/04, 1/18/05.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 22,27,28 and 32-85 is/are pending in the application.
- 4a) Of the above claim(s) 34-83 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 22,27,28,32,33,84 and 85 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 January 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### *Drawings*

1. The replacement drawings were received on 1/18/05. It is noted that this set of replacement drawings did not include Figures 16-17. These replacement drawings are objected to for the following reason(s) as set forth below.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Figure 12A- Reference numeral 601

Figure 12B- Reference numeral 701.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Response to Amendment***

3. The amendments to the specification of the disclosure in the submission dated 12/22/03 are acknowledged and accepted. In view of these amendments, the objections to the specification in Section 8 of the Office Action dated 6/23/03 are respectfully withdrawn.
4. The amendments to Claims 22, 27-28, 32-33 in the submission dated 1/18/05 are acknowledged and accepted.
5. The cancellation of Claims 23-26, 29-31 in the submission dated 1/18/05 is acknowledged and accepted. In view of this amendment, the rejection of Claim 29 in Section 10 of the Office Action dated 6/23/03 is respectfully withdrawn.
6. The addition of Claims 84-85 in the submission dated 1/18/05 is acknowledged and accepted.

***Oath/Declaration***

7. The supplemental oath/declaration filed 12/22/03 as part of a petition to correct inventorship under 37 CFR 1.48(a) is acknowledged and accepted.

***Inventorship***

8. In view of the papers filed 12/22/03 and 4/7/04, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected

in compliance with 37 CFR 1.48(a). *The inventorship of this application has been changed by the addition of the following inventors: Ahouzi Esmail and Guanshen Zhang.*

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

***Response to Arguments***

9. The Applicants' arguments filed 12/22/03 with respect to the rejections of Claims 22-33 in Section 12 of the Office Action dated 6/23/03 have been fully considered but they are not persuasive. As noted above, the Applicants' petition to correct the inventorship under 37 CFR 1.48(a) is acknowledged and approved. However, the change in inventorship of the instant application does not overcome the rejections of Claims 22-33 under 35 U.S.C. 102(a). 35 U.S.C. 102(a) specifically states that 'A person is entitled to a patent unless – (a) the invention was known or used *by others* in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, ...' (Emphasis added; See specifically MPEP 2132). The inventive entity of the current application is Bahram Javidi, Ahouzi Esmail and Guanshen Zhang. The entity of the Javidi/Ahouzi reference appears to be Bahram Javidi and Ahouzi Esmail. Because the inventive entity of the instant application is different from the entity of the Javidi/Ahouzi reference, the rejections of Claims 22-33 in Section 12 of the Office Action dated 6/23/03 is proper under 35 U.S.C. 102(a).

10. The Applicants' arguments, see specifically Pages 13-14 of the Applicants' remarks, filed 12/22/03, with respect to the rejections in Sections 13-14 of the Office Action dated 6/23/03, have been considered and are persuasive. The rejections in Sections 13-14 of the Office Action dated 6/23/03 have been withdrawn.
11. Claims 22, 27-28, 32-33, 84-85 are rejected as follows.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

13. Claims 22, 27-28, 32-33, 84-85 are rejected under 35 U.S.C. 102(a) as being anticipated by Javidi/Ahouzi (B. Javidi, E. Ahouzi, "Optical security system with Fourier plane encoding ", Appl. Opt., vol. 37, no. 26, Sept. 10, 1998, pp. 6247-6255.), of record.

Javidi/Ahouzi discloses a system for verifying the authenticity of an object (See entire document, and in particular Figure 1 and Sections 2-3) comprising an optical coherent laser signal source operative to form a laser beam to form a first and second signal; a first beam expander for expanding the first signal from the optical signal source; a first collimating lens for collimating the first signal; a primary image disposed within the path of the first signal; a filter matched to a random code is disposed within the path of the first signal; a first transforming lens disposed within the path of the first signal; an imaging arrangement for imaging a first image comprising the convolution of the primary

image and the random code; a second beam expander for expanding the second signal from the optical signal source; a second collimating lens for collimating the second signal; a beam splitter for receiving the collimated second signal and a reference signal from a reference image to provide a second image; a second transforming lens disposed within the path of the second image; a beam combiner for combining the first and second images; a charge coupled device (CCD) detector for recording the combined first and second images generating thereby a joint power spectrum; and a correlator in communication with the detector for generating a correlation signal from the joint power spectrum, the correlation being indicative of a correlation of the primary image and the reference image; the correlator including a nonlinear transfer function generator for applying a k-th power law nonlinear transformation to the joint power spectrum, a transforming system in communication with the nonlinear transfer function generator for performing the correlation of the joint power spectrum that has been nonlinearly transformed, and a system for analyzing the peaks of the correlation of the joint power spectrum that has been nonlinearly transformed. Javidi/Ahouzi additionally discloses the imaging arrangement comprising imaging lenses and the filter comprising a spatial filter.

***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavaras whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

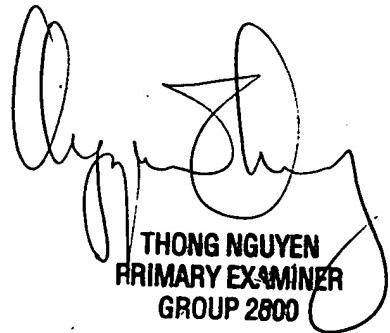
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnel C. Lavarias  
7/13/05



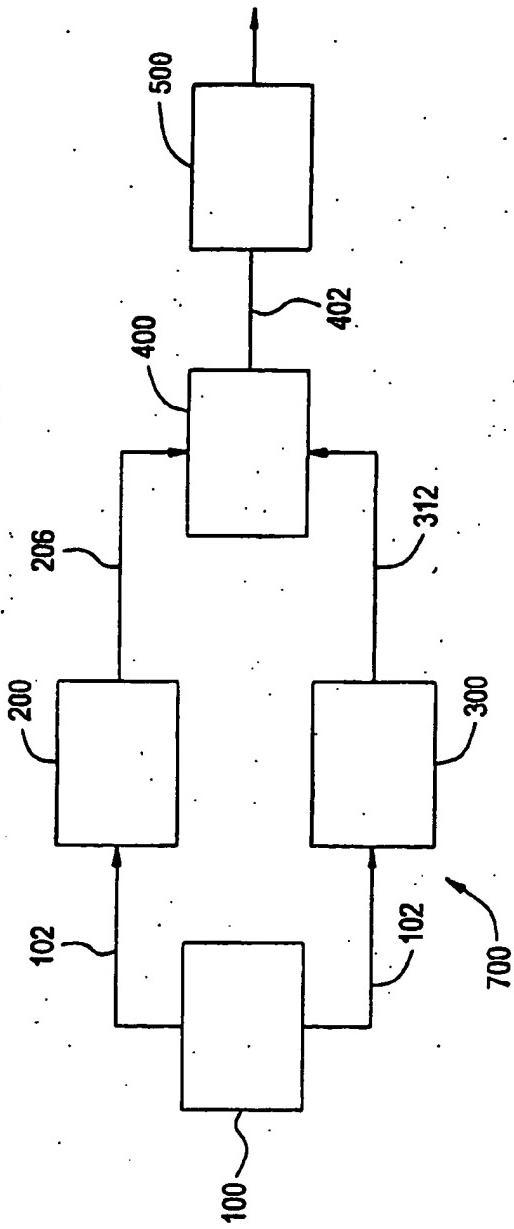
THONG NGUYEN  
PRIMARY EXAMINER  
GROUP 2800

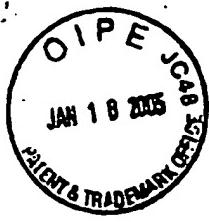
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JAN 18 2005 JCAB  
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## REPLACEMENT SHEET

1/23

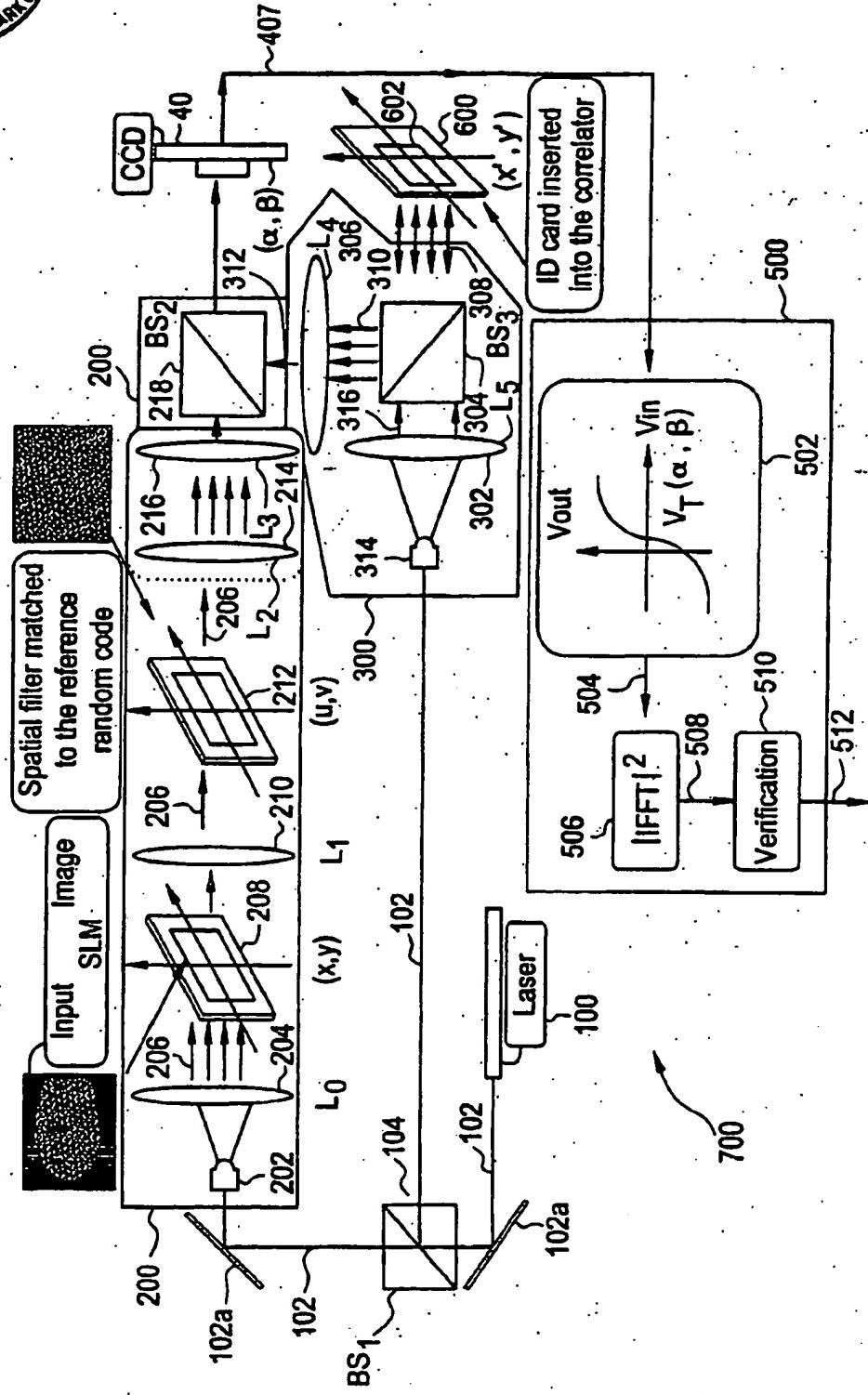
FIG. 1





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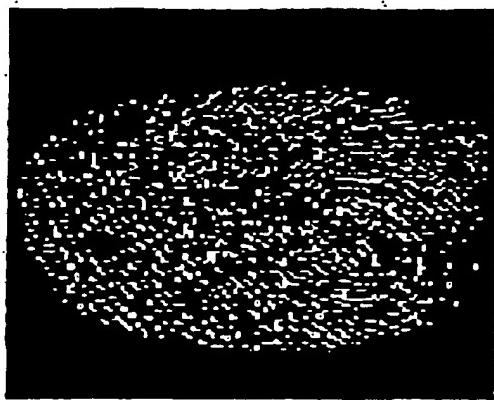
FIG. 1A





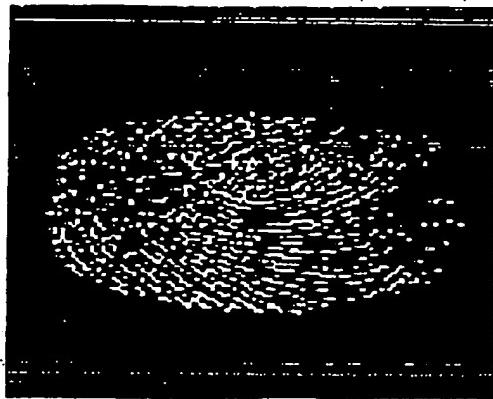
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FIG. 2A



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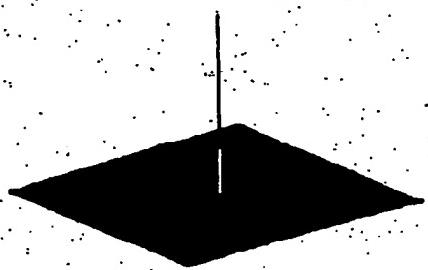
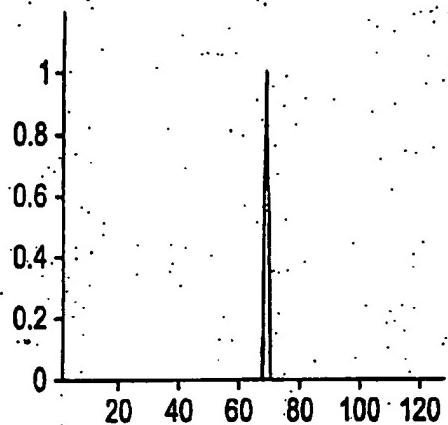
FIG. 2B





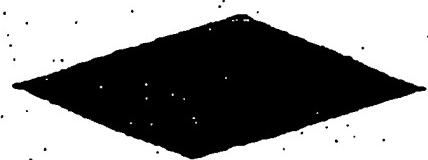
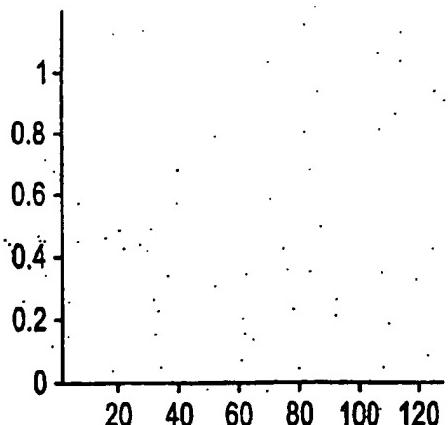
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FIG. 3A



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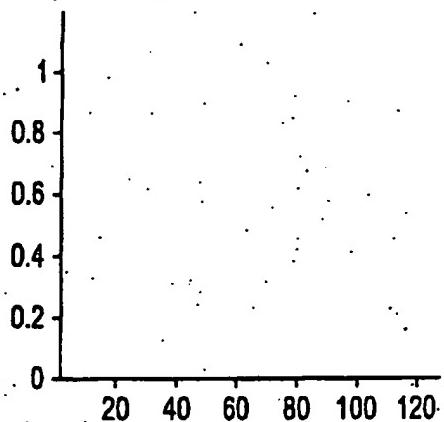
FIG. 3B





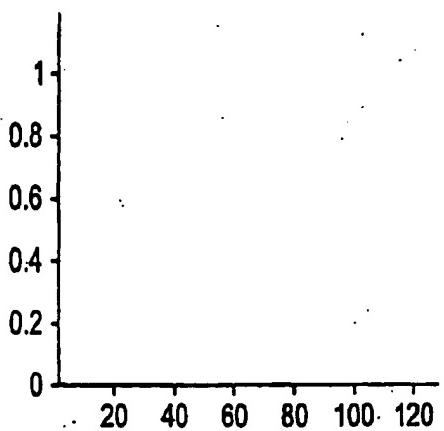
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FIG. 3C



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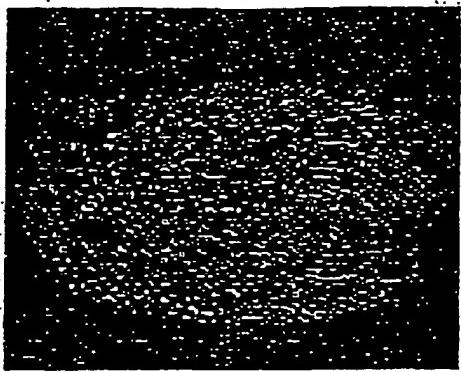
FIG. 3D





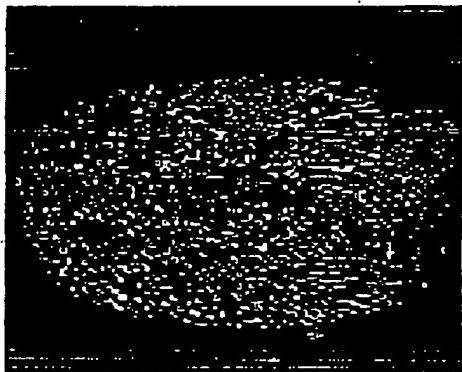
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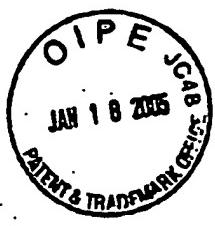
FIG. 4A



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FIG. 4B





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FIG. 5A

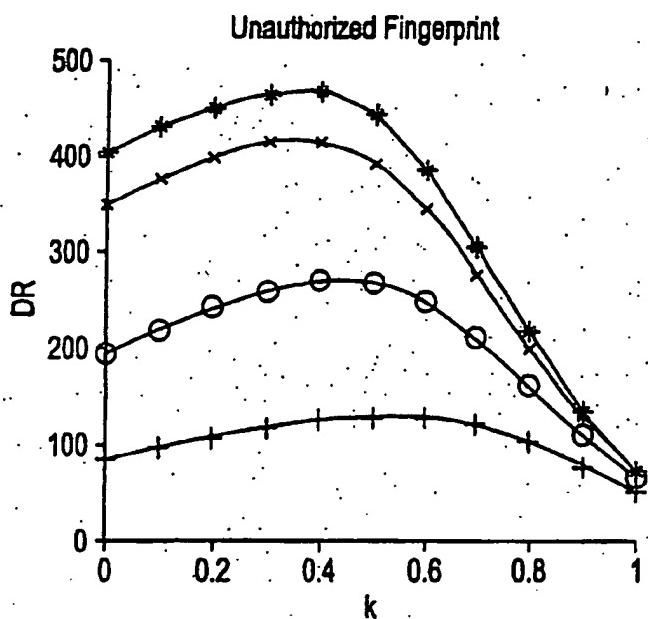
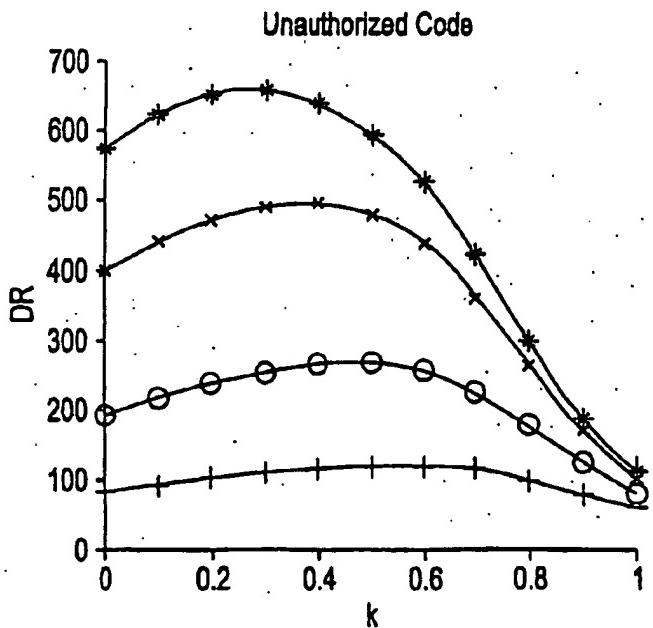


FIG. 5B





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FIG. 5C

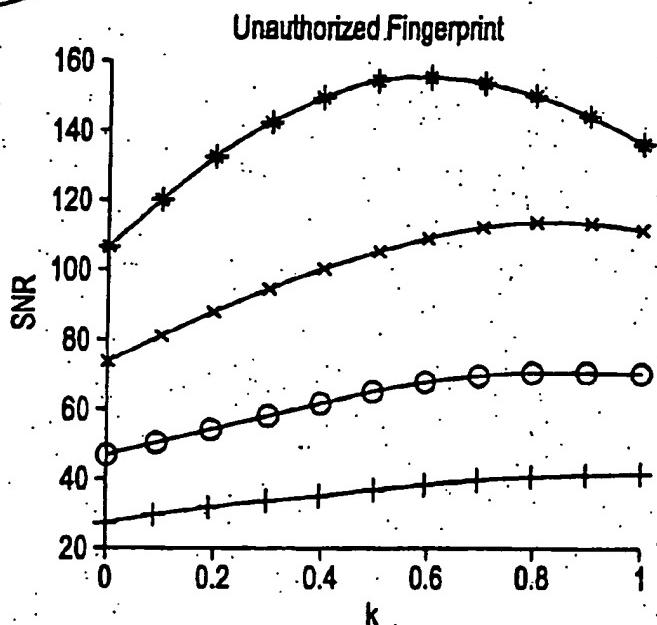
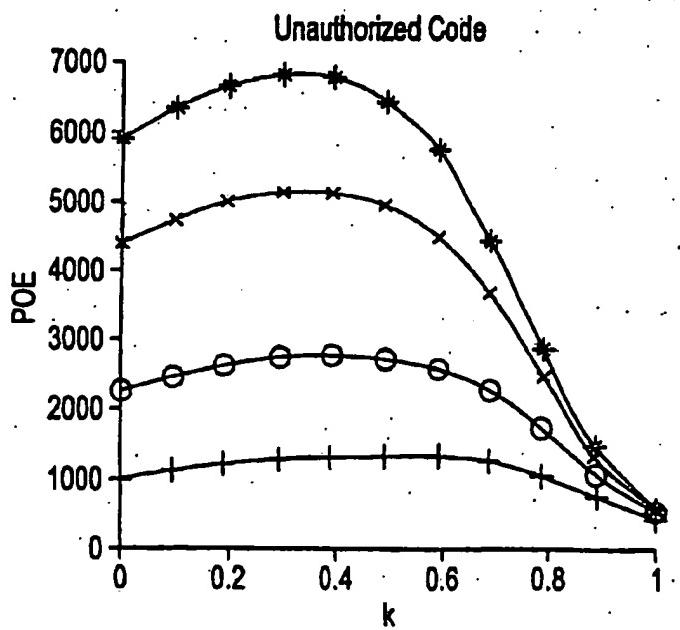


FIG. 5D

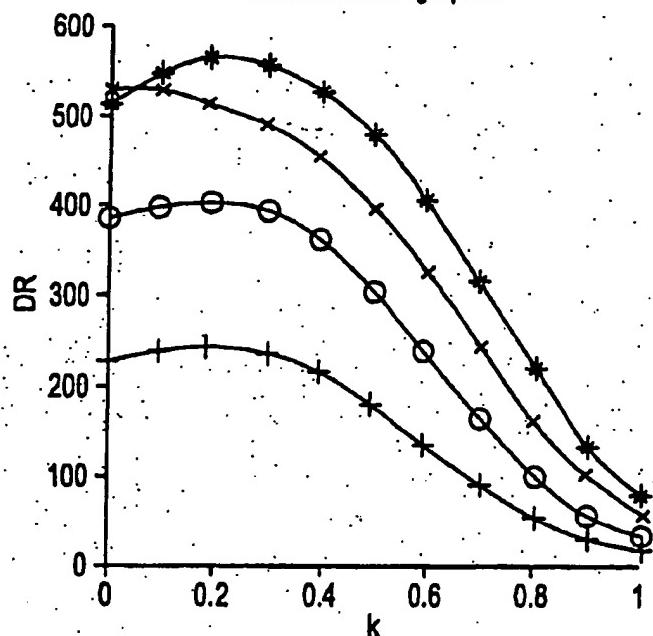




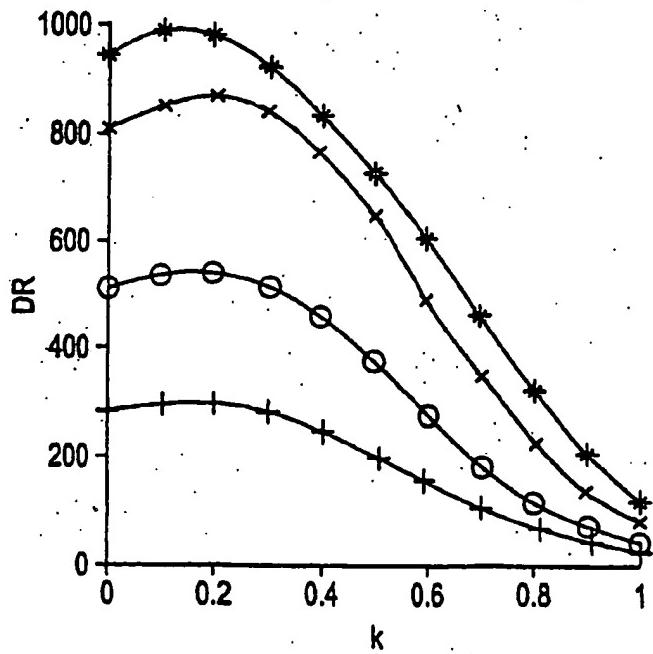
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**FIG. 6A**

Unauthorized Fingerprint

**FIG. 6B**

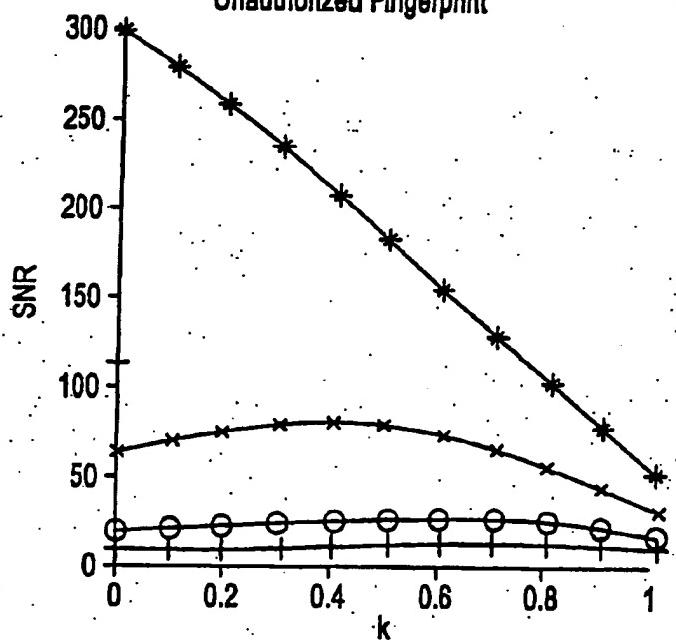
Unauthorized Code



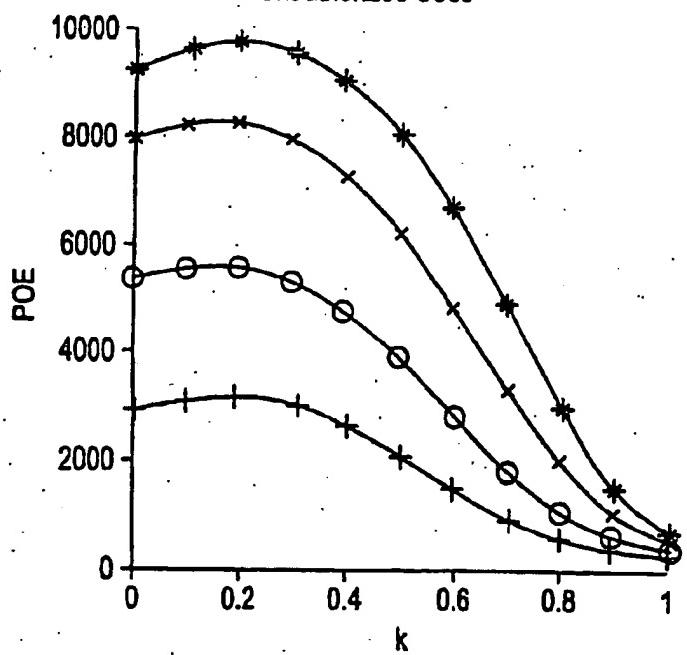


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**FIG. 6C**  
Unauthorized Fingerprint



**FIG. 6D**  
Unauthorized Code

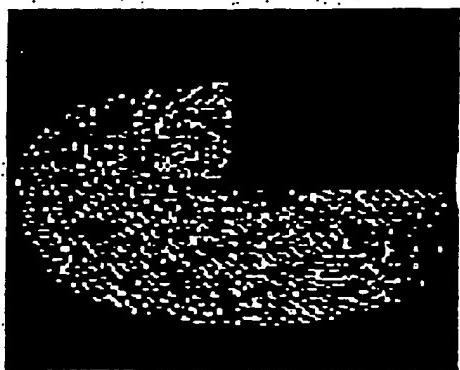


REPLACEMENT SHEET

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FIG. 7



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FIG. 8A

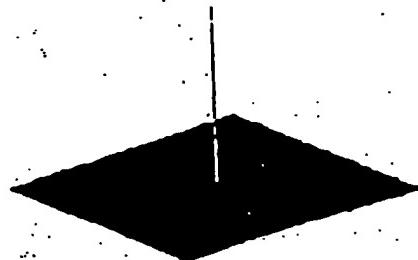
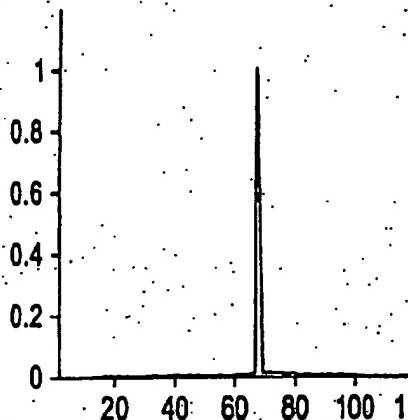
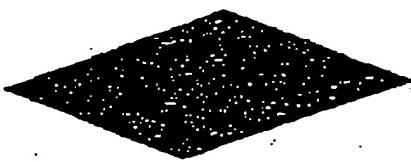
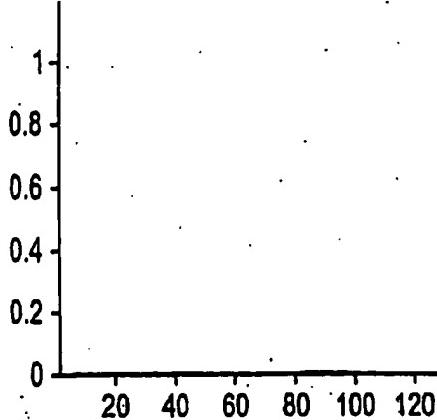


FIG. 8B

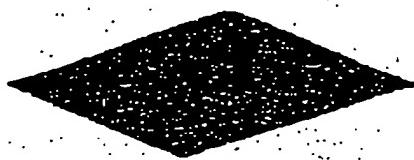
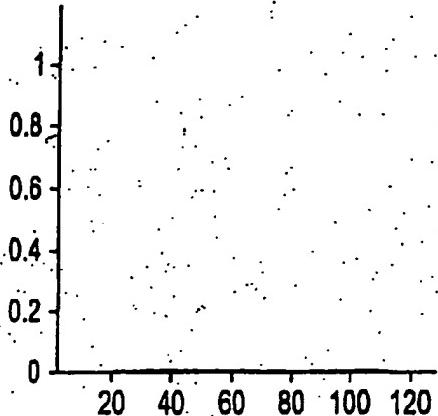


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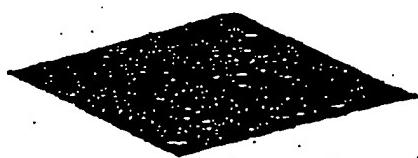
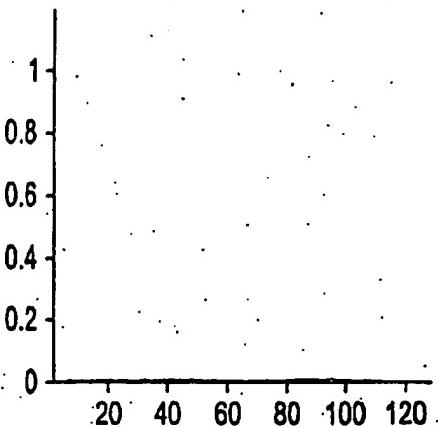
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FIG. 8C



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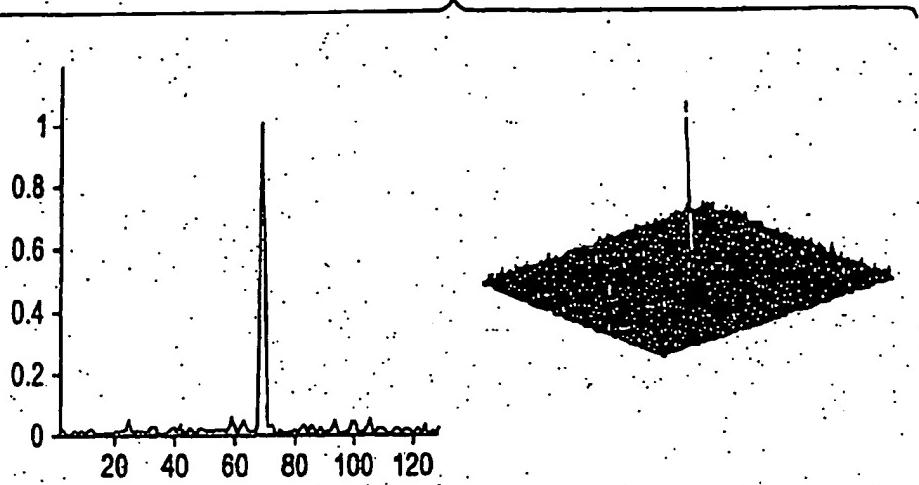
FIG. 8D



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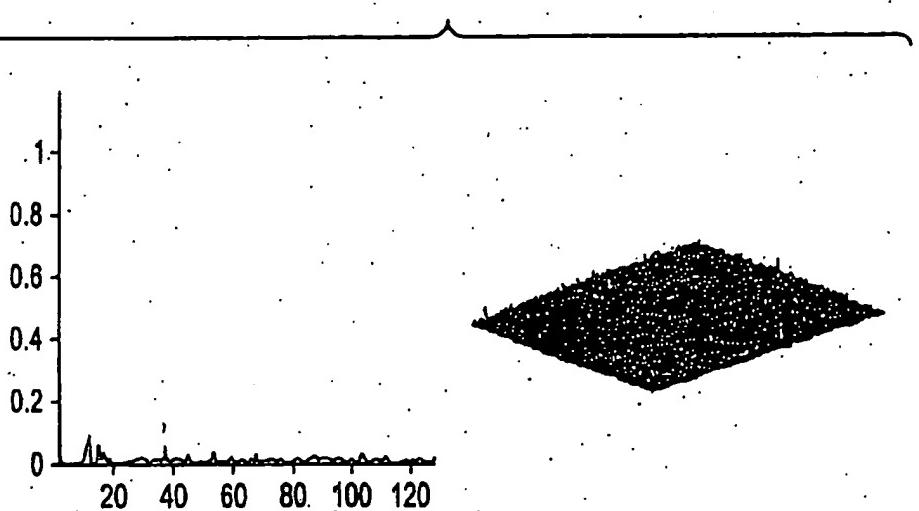


FIG. 9A



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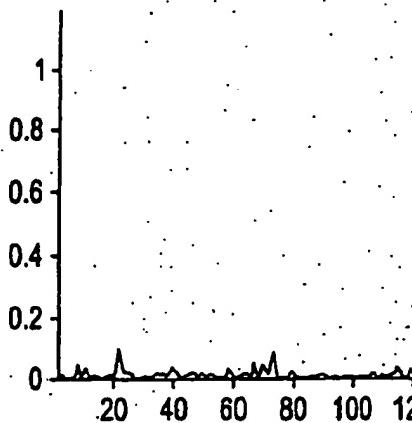
FIG. 9B





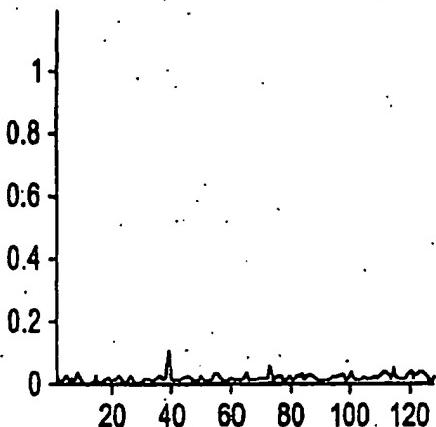
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FIG. 9C



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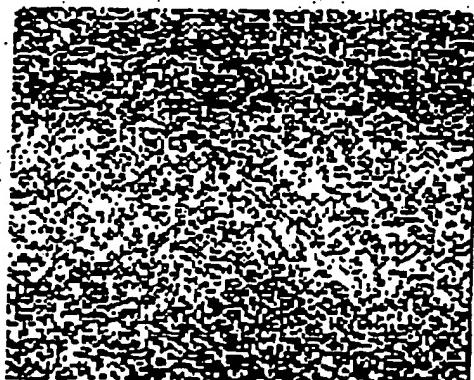
FIG. 9D





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FIG. 10



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FIG. 11A

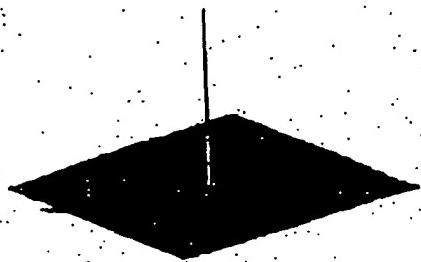
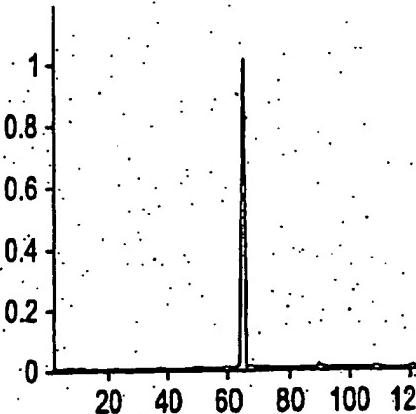
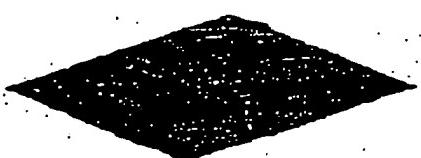
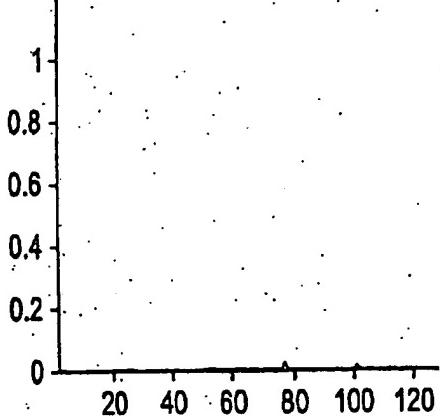


FIG. 11B

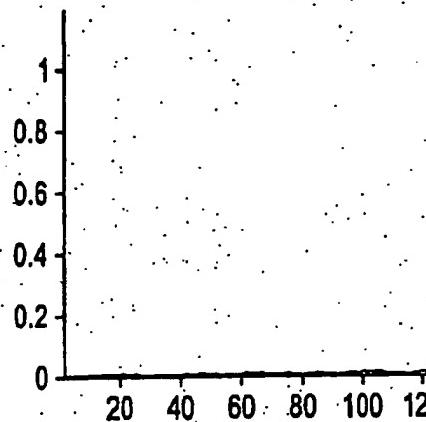


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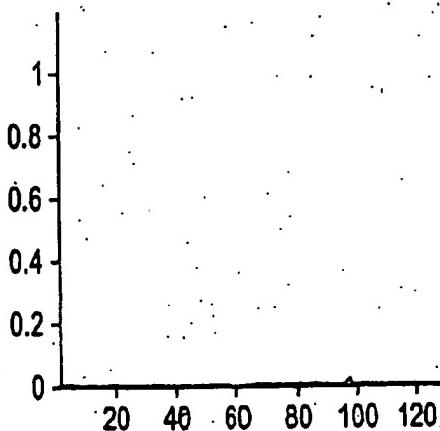


FIG. 11C



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FIG. 11D





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FIG. 12A

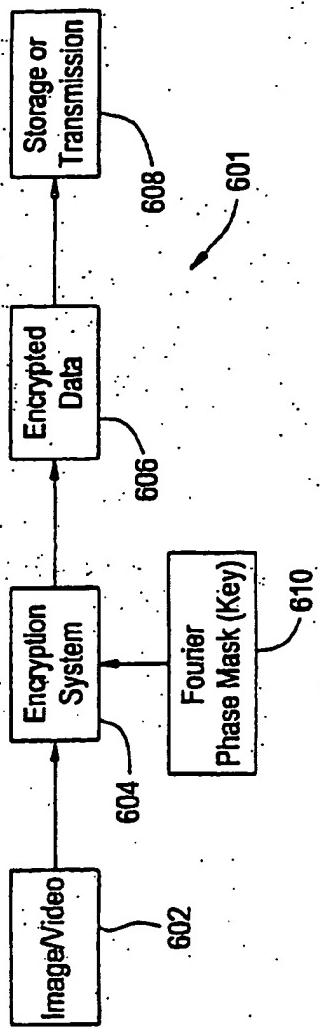
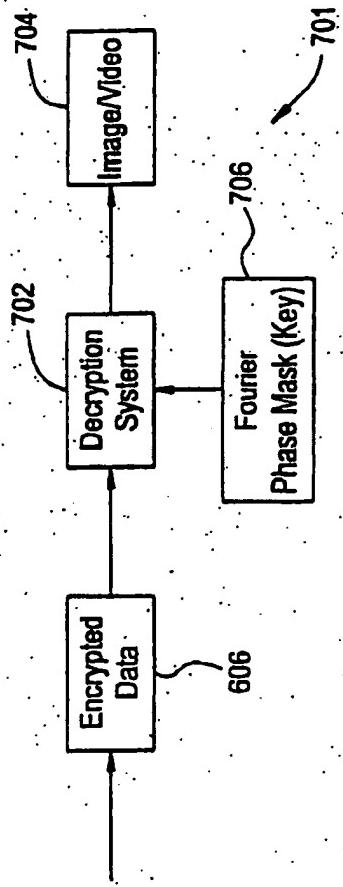


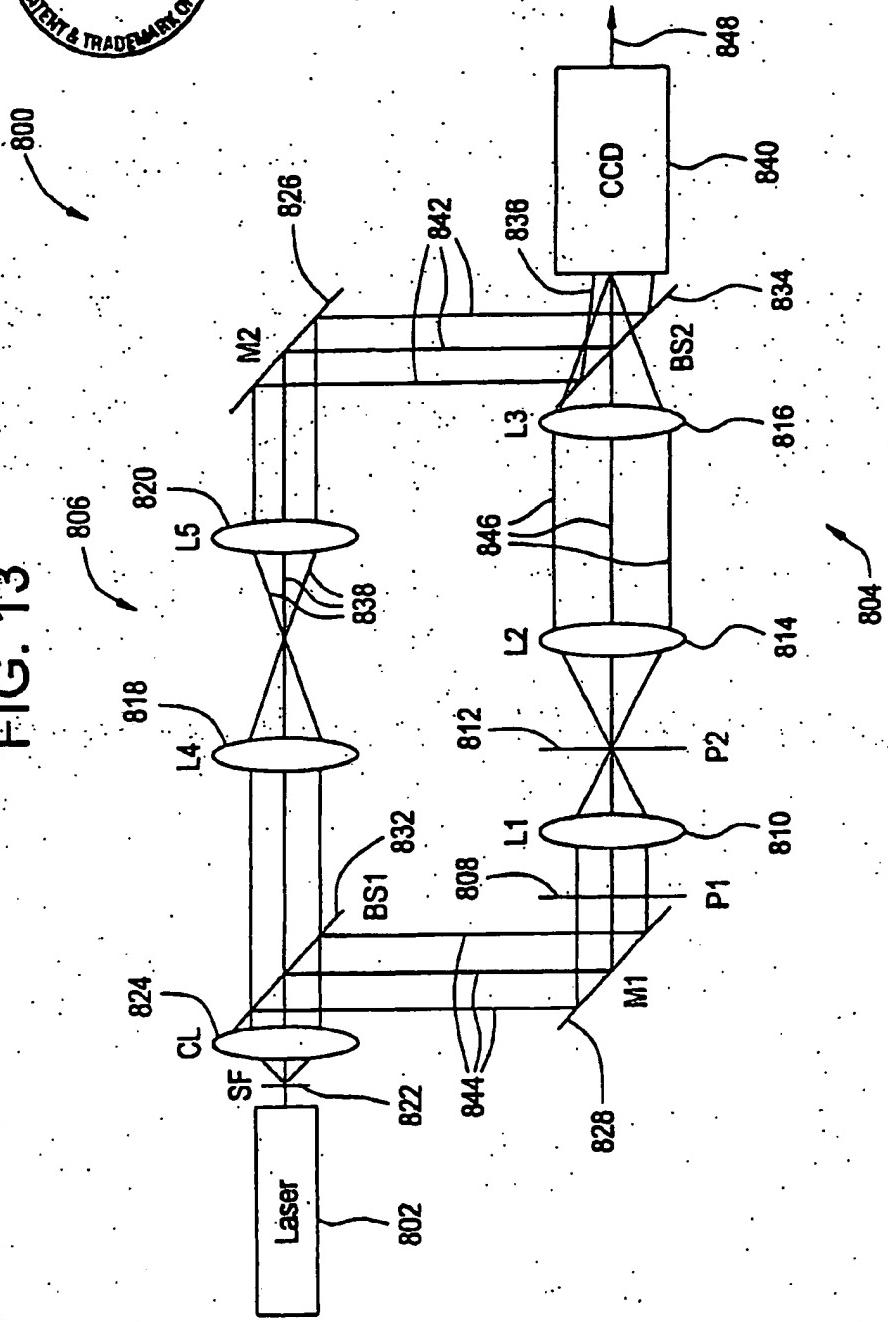
FIG. 12B



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FIG. 13



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FIG. 14

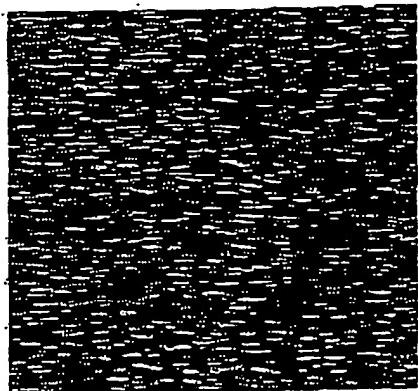
MEMORY UCONN

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FIG. 15A



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FIG. 15B

